ABSTRACT

A method for supplying reaction gases in which at least a material to be oxidized and a gas containing molecular oxygen are mixed and the resultant mixture is supplied to a catalytic gas-phase oxidation reactor, characterized in that, a feed rate of the material to be oxidized and a feed rate of the gas containing molecular oxygen are adjusted so that when a composition of a gas at the inlet of the catalytic gas-phase oxidation reactor is changed from a composition A point [the concentration of the material to be oxidized: R(a), and the concentration of oxygen: O(a)] represented by plotting a concentration of the material to be oxidized and a concentration of oxygen in the gas at said inlet to a composition B point [R(b) and O(b)] [the composition A point and the composition B point are compositions outside an explosion range, and R(a) $\neq$ R(b) and O(a) $\neq$ O(b)], compositions on the way of the change from the composition A point to the composition B point fall outside the explosion range.